

Sign and Symptoms of Heat Illness

Muscle (Heat) Cramps	Heat Exhaustion	Heat Stroke
Thirst	Dizziness	Hot, dry reddish skin
Sweating	Headache	Significant (104 F) increase in body temperature
Fatigue	Cool, clammy, pale skin	Rapid, pounding pulse
Transient muscle cramps	Normal or slight elevated body temperature	Disoriented or unconscious
	Rapid, weak pulse	

Treatment:

Heat Cramps

- Rest
- Cooling down the athlete
- Replace fluids, both water and electrolytes

Heat Exhaustion

- Rest
- Rapid cooling
- Replace fluids, both water and electrolytes

Heat Stroke

- Most severe heat illness. Requires immediate Medical Attention (call 911)
- Immediate cooling

Preventing Heat Illness

Acclimatize gradually. Gradual exposure to warm environments combined with good aerobic fitness is an essential prevention strategy. A period of 7 to 10 days is needed to achieve acclimatization.

Fluid Replacement:

Before Activity:

- Drink 17 – 20 oz. of water or a sports drink 2 – 3 hours before activity
- 10 – 20 minutes before activity drink another 7 – 10 oz. of water or sports drink

During Activity:

- Drink Early
- In general, every 10 – 20 minutes drink at least 7 – 10 oz. of water or a sports drink
- Drink beyond thirst
- Even minimal dehydration compromises performance

After Activity:

- Within 2 hours drink enough to replace any weight loss from activity
- Drink 20 – 24 oz. of a sports drink per pound of weight loss
- Avoid Caffeine

Go to <http://www.gatorade.com/hydration> for more information.

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Activity Health Tip #1: HEAT ILLNESSES



The weather is beautiful, the sun is shining and it is **HOT, but are you aware of the dangers?**

-Although everyone is susceptible to heat illness it affects people differently-

Physically fit, acclimatized, well hydrated people are more

heat tolerant while the elderly and children are more likely to suffer from heat illness.

Remember, dehydration does not only occur when you are exercising in the heat. You can become dehydrated when doing other things such as spending a day at the beach, working in the yard, visiting a theme park or any other activity that requires prolonged exposure to heat. Heat illness causes disabling complications related to excessive heat stress.

-Dehydration-

A process that results in below-normal levels of fluid in the body that occurs when the amount of body fluid that is lost is greater than the amount of fluid that is replaced. Drink water or sports drinks (not caffeinated or alcoholic beverages) before, during and after exercise. How much you need to drink depends on how big you are and how hot it is. Refer to the NATA position statement on fluid replacement for details.

-Heat Exhaustion-

The most common type of heat illness. It is caused by decreased blood volume due to dehydration. Characterized by dizziness, headache, nausea, profuse sweating, cool/clammy skin, rapid/weak pulse, body temperature elevated, although not to the extent found with exertional heat stroke (likely between 102 and 104 degrees F). To treat, remove from hot environment and cool as quickly as possible.

-Heat Cramps-

Painful spasms of the skeletal muscle caused by dehydration. Prevented by proper prehydration and relieved with gentle stretching, ice and increased fluid consumption.

-Heat Stroke-

The least common but most serious, even fatal.

Caused by:

- 1) the body's cooling system has completely shut off or
 - 2) blood volume is so low that the person stops sweating and goes into shock
- Characterized by: disorientation, unconsciousness, no sweating, hot/dry skin, increased body temperature, rapid/ strong pulse.
- Treatment requires rapid cooling and immediate transportation to the hospital.

Here are some tips on how to reduce the likelihood of becoming dehydrated:

- 1) Drink fluids before, during and after exercise or prolonged heat exposures.
- 2) Check the color of your urine to see if fluid intake is adequate.
Clear/ light colored urine indicates proper hydration.
- 3) Avoid caffeine and alcohol
- 4) Take frequent breaks

For more information, visit: www.nata.org

This Activity Health Tip from the National Athletic Trainers' Association is intended to prevent injuries and promote health and safety of physically active people. Certified athletic trainers (ATCs) are medical professionals who specialize in the prevention, assessment, treatment and rehabilitation of injuries and illnesses that occur to athletes and the physically active.
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